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EXAMINER	
DIVINE, LUCAS	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/922,646	SHIMIZU, MASAAKI	
	Examiner	Art Unit	
	Lucas Divine	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 August 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1 – 51 are pending.

2. Drawing objections, claim objections, § 112 rejections, and § 101 withdrawn do to adequate amendments.

Response to Arguments

3. Applicant's arguments with respect to claims 1 – 41 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendments include having a plurality of image processing functions and wherein, when in place of one of the plurality of image processing functions another one of the plurality of image processing functions obtains the print function, said information processing apparatus displays information indicating the another image processing function and information showing that the one image processing function cannot be executed.

In response to this amendment, Examiner points to Hisatake, included in previous Office Action as pertinent prior art. Hisatake teaches composite machines that can print, fax, and copy (e.g. 8, Fig. 1; col. 1 lines 13-14; col. 5 lines 54-58) as well as clients (information processing apparatuses, Fig. 1 ref. no. 2, 3; col. 6 lines 56-60; col. 5 lines 61-64) and **wherein, when in place of one of the plurality of image processing functions another one of the plurality of image processing functions obtains the print function** (fax is shown as currently having the print function in Fig. 7, copy in Fig. 14; print function shared – col. 7 lines 44-46)**, said**

information processing apparatus displays information indicating the another image processing function (display fax function in Fig. 7, copy in Fig. 14) **and information showing that the one image processing function cannot be executed** (both copy and print functions cannot be executed because they're waiting in Fig. 7, both print and fax waiting in Fig. 14).

The motivations for having such a display would have been for grasping the status of jobs easily and conveniently (col. 17 lines 47-38) as well as other motivations discussed in Hisatake (e.g. col. 2 lines 27-31) and well known in the prior art.

Thus, while the previous references do not show the limitations, they are well known and obvious in the art and are further discussed in detail in the new rejections below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 – 4, 7 – 16, 18 – 26, 28 – 32, 34 – 37, and 39 – 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hisatake (US 5669040) and Webb et al. (US 5727135).

Regarding claim 11, Hisatake teaches **an image processing apparatus** (e.g. composite machine 8) **for executing an image processing function selected from among a plurality of image processing functions** (col. 7 line 46 and throughout) **based on a print request from an information processing apparatus or an image processing request from an operation unit** (receive data from operation panel 11 or client 2,3), **said image processing apparatus having a**

print function that can be used by the plurality of image processing functions for printing data on a recording medium (e.g. Fig. 7 or 8 or 14, wherein only one function has access to the print function)**, said image processing apparatus comprising:**

acquisition means for acquiring information indicating the function status of the plural image processing functions (inherent in the ability to have and display the status is the ability to acquire it);

management means for managing the information acquired by said acquisition means in unified manner in storage means (16, Fig. 2 [col. 7 lines 15-30] as controlled by control section 12 – it is the only disclosed memory of Fig. 2, thus is a unified storage means, data is clearly managed for the displays as well); **and**

control means for monitoring the change in the function status indicated by the information acquired by the acquisition means (control means 12 controls the system, including the changing statuses) **and renewing the information stored in said storage means in response to a change in the function status** (inherent to the system reporting the current status of the jobs, Fig. 7, 8, 14 etc.) **and**

when in place of one of the plurality of image processing functions another one of the plurality of image processing functions obtains the print function (fax is shown as currently having the print function in Fig. 7, copy in Fig. 14; print function shared – col. 7 lines 44-46), **said information processing apparatus displays information indicating the another image processing function** (display fax function in Fig. 7, copy in Fig. 14) **and information showing that the one image processing function cannot be executed** (both copy and print

functions cannot be executed because they're waiting in Fig. 7, both print and fax waiting in Fig. 14).

Hisatake does not specifically teach that the display means for the jobs is displayed at the client and based on client instructions.

However, Webb teaches having the operator panel of the printing device being able to be displayed and controlled from the client (Fig. 1 and description throughout). Thus, the operation panel of Hisatake shown throughout can be used, accessed, and have the same displays at the client.

It would have been obvious to one of ordinary skill in the art that the display of Hisatake could have been displayed at a client computer. The motivations are discussed very thoroughly in the background and summary of Webb's invention (e.g. cols. 1-5), e.g. col. 3 lines 60-67 'provides the user, without leaving the host, with the ability to access and use all features of the printer operator panel to the same extent that a person could if physically present at the printing itself.'

Regarding claim 12, which depends from claim 11, the combination teaches **information means for informing said information processing apparatus of the information stored in said storage means** (Webb teaches the information processing apparatus is informed of information stored in the composite machine, see Fig. 1)**, based on the print request from said information processing apparatus** (Hisatake teaches the clients can send jobs to the printer; col. 6 lines 56-60; col. 5 lines 61-64).

Regarding claim 13, which depends from claim 11, the combination teaches **informing means for informing said information processing apparatus of the information stored in**

said storage means, based on a request from said information processing apparatus for information indicating the function status (in the combination the buttons on the screen of the client would be the buttons U whatever as shown in the figures of Hisatake, e.g. Fig. 8, 14 etc. – thus a user could click the button on the client and get the status from the printer).

Regarding claim 14, which depends from claim 11, the combination teaches the device to **include a print function for executing printing based on data from the information processing apparatus, a copy function and a facsimile function** (col. 5 line 55 and throughout in Hisatake).

Regarding claim 15, which depends from claim 11, the combination teaches **printing means for printing on a sheet, wherein said printing means is used by one of the plural image processing functions** (14, Fig. 2).

Regarding claim 21, the apparatus elements of apparatus claim 11 perform all of the method steps of method claim 21. Therefore, method claim 21 is rejected for the same reasons as rejected apparatus claim 11 above.

Regarding claim 22, which depends from claim 21, the apparatus elements of apparatus claim 12 perform all of the method steps of method claim 22. Therefore, method claim 22 is rejected for the same reasons as rejected apparatus claim 12 above.

Regarding claim 23, which depends from claim 21, the apparatus elements of apparatus claim 13 perform all of the method steps of method claim 23. Therefore, method claim 23 is rejected for the same reasons as rejected apparatus claim 13 above.

Regarding claim 24, which depends from claim 21, the apparatus elements of apparatus claim 14 perform all of the method steps of method claim 24. Therefore, method claim 24 is rejected for the same reasons as rejected apparatus claim 14 above.

Regarding claim 25, which depends from claim 21, the apparatus elements of apparatus claim 15 perform all of the method steps of method claim 25. Therefore, method claim 25 is rejected for the same reasons as rejected apparatus claim 15 above.

Regarding claim 31, the method steps of method claim 21 are the same as the program steps of program claim 31. Further Hisatake expressly discloses systems with processors and memories for performing program steps. Thus, the steps of program claim 31 are rejected for the same reasons as discussed in the rejection of method claim 21.

Regarding claims 1, 16, 26, 32, 37, 42, 45, 48, 49, 50, and 51, all of these claims are in the same vein as claim 11. To recap, the combination of claim 11 includes Hisatake teaching all of the functions of: plurality of image processing functions (Fig. 7), having a client computer that generates and sends print data to the composite machine (col. 5 line 62), acquiring print status of all of the functions for displaying them on a display (Figs. 7, 8, and 14 as examples), the added limitations of displaying information that one function cannot be executed if another is currently using the print function (Fig. 7 and as discussed twice already above), transmission means in the interfaces (e.g. 18 of Hisatake) on the networks (Fig. 1), the display updates (and thus must transmit in the combination) the screen with any new update of events, and further ideas that can be gleaned from the whole reference of Hisatake.

And while it is obvious to want to let a user know the status of his job, Hisatake doesn't specifically teach it. Thus, Webb teaches that all of the functions a user can do at the operator panel at a composite device can be done at the client (Fig. 1 and throughout) and is obvious at least for the reasons that Webb themselves posit in the background and specification.

Regarding claim 2, which depends from claim 1, the combination teaches that **information processing apparatus displays the function status of the plural image processing functions in a single image, based on the acquired information** (Fig. 7, 8, 14 of Hisatake).

Regarding claim 3, which depends from claim 1, the combination teaches the **information processing apparatus is adapted to display, on the display unit, that the generated print data are being transferred to said image processing apparatus** (Fig. 14, L19 teaches the ability to indicate that jobs are being received at the composite device in Hisatake).

Regarding claim 4, which depends from claim 1, the combination further teaches **discriminating, based on the acquired information, whether an image processing function of higher priority is executed in said image processing apparatus** (by operations of Fig. 3 for determining output processing order, Figs. 4 and 5 are descriptive as well [e.g. 'processing rank' of S13]) **and, in case of a discrimination that a processing function of higher priority is executed, displays the function status of the image processing function of such high priority in an emphasized manner** (when jobs are placed at higher priority [see Fig. 4B and Fig. 7], their output processing order changes and they are shown in the job list as their job order, and thus their priority in an emphasized manner [higher on the list for example]).

Regarding claim 7, which depends from claim 1, the combination teaches that the multi-functional unit disclosed **acquires information indicating the function status of the plural image processing functions** (must be acquired in order to display as in Fig. 7)**, manages the acquired information in unified manner** (16, Fig. 2 [col. 7 lines 15-30] as controlled by control section 12 – it is the only disclosed memory of Fig. 2, thus is a unified storage means, data is clearly managed for the displays as well) **in a storage unit** (Memory 16)**, and renews the information stored in said storage unit in response to a change in the function status** (inherent to the system reporting the current status of the jobs, Fig. 7, 8, 14 etc.)**.**

Regarding claim 8, which depends from claim 7, the combination teaches these limitations as discussed in the rejection of claim 13 above.

Regarding claim 9, which depends from claim 1, the combination teaches these limitations as discussed in the rejection of claim 14 above.

Regarding claim 10, which depends from claim 1 the combination teaches these limitations as discussed in the rejection of claim 15 above.

Regarding claims 18, 28, 34, and 39, which depend from claims 16, 26, 32, and 37, the combination teaches these limitations as discussed in the rejection of claim 7 above.

Regarding claims 19, 29, 35, and 40, which depend from claims 16, 26, 32, and 37, the combination teaches **display control means displays a text indicating the function status of the image processing function of higher priority in an emphasized manner by a layout in a predetermined area of the display unit** (in the case that a new function has higher priority, Fig. 7 teaches to display based on priority, thus displaying the items with higher priority emphasized

compared to other jobs [higher on the list for example, which is being laid out in a predetermined area of the display unit]).

Regarding claims 20, 30, 36, and 41, which depend from claims 16, 26, 32, and 37, the combination teaches these limitations as discussed in the rejection of claim 14 above.

Regarding claims 43 and 46, which depend from claims 42 and 45, the combination teaches **wherein the one image processing function for printing data received from the information processing apparatus, and the another image processing function is a copy function or a facsimile function, wherein the copy function or facsimile function obtains the currently used print function by an interrupt process, and wherein the information indicates that the function for printing from the information processing apparatus cannot be executed** (Fig. 14 shows the copy job with the highest priority is printing and the job 2 for print data cannot be executed – jobs can get a processing rank of 0 [Fig. 12] which stops the current job and puts in the one with higher priority, thus interrupting and setting the other one to standby 'waiting' as job 2 is shown in Fig. 14, read more throughout about the priority scheme of Hisatake).

Regarding claims 44 and 47, which depend from claims 42 and 45, the combination teaches **in the even that one of the plurality of image processing functions uses the print function, another one of the plurality of image processing functions obtains the currently used print function** (as by interrupts discussed in the rejection to claims 43 and 46 above as taught by Hisatake) **said transmission means** of the image forming apparatus and **said control means** of the information processing apparatus information **indicating the another image processing function** and **displaying it on the information processing apparatus** (Webb

teaches the information processing apparatus is informed of information stored in the composite machine, see Fig. 1, which would include the updated status of Hisatake when a new job takes over the print engine).

5. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Hisatake and Webb as applied to claims 1 and 4 above, and further in view of Ota et al. (US 6785013).

Regarding claim 5, which depends from claim 4, while the combination teaches a printing system with a composite device with priorities for jobs, the combination does not specifically teach **simultaneously with the emphasized display of the function status of the image processing function of higher priority, suspends the transfer process of the print data to said image processing apparatus.**

Ota teaches a multi-functional unit 10, status collecting for the device (Fig. 3 between driver 21 and job 25), and **suspending the transfer process of print data for higher priority jobs** (Fig. 7 shows the normal copy job in processing/transferring, and it is suspended/saved in order for the higher priority job to complete [the interrupt copy job]; col. 12 lines 19-61).

It would have been obvious to one of ordinary skill in the art that higher priority jobs should be completed first, including the interruption of current jobs as in Ota. The motivation for doing so would be to process jobs according their priority so that if a user needs a job immediately, he not only sees his job at the top of the status display, but the job also gets taken care of immediately as well, thus the nature of high priority.

6. Claims 6, 17, 27, 33, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hisatake and Webb as applied to claims 1, 16, 26, 32, and 37 above, and further in view of McCormick et al. (US 5706411).

Regarding claim 6, which depends from claim 1, the combination teaches does not specifically teach updating the display with the transferring of each page of print data from the client.

However, McCormick teaches the **information processing apparatus acquires, from said image processing apparatus, the information indicating the function status of the image processing functions, for every transfer of the print data of a page** (Fig. 6, where it is shown that 2 pages are still at the client and thus displays the status throughout the sending of the job, including at each page [see also Fig. 5]) which would apply to the **plural functions** in the combined system).

It would have been obvious to one of ordinary skill in the art to update the status of Hisatake in real time, thus including for each page that is transmitted and printed. The motivation for doing so would have been to allow the user a more informational and more accurate picture of the status of their print jobs.

Regarding claims 17, 27, 33, and 38, which depend from claims 16, 26, 32, and 37, the combination teaches that **display control means is capable, based on the information acquired by said acquisition means, of the function status of the plural image processing functions on a single image** (Fig. 8, 14) **by graphics and text** (graphic the job icon behind 'job 1' and text throughout), but doesn't teach animation.

McCormick teaches display screen in Fig. 5 which displays graphics [59], text [55], and animation [57].

It would have been obvious to one of ordinary skill in the art to add in the animation of McCormick to allow the user to see the status of individual jobs, especially obvious to add it to the Fig. 14 of Hisatake because Fig. 14 has the same functionality as Fig. 5, including the indication of how far along a job is in transferring/receiving. The motivation for having such an animation is to make the status window easier to understand and read as well as allowing a quick indication of how far along something is without having to read anything at all.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine
Examiner
Art Unit 2624

ljd

KING Y. POON
PRIMARY EXAMINER